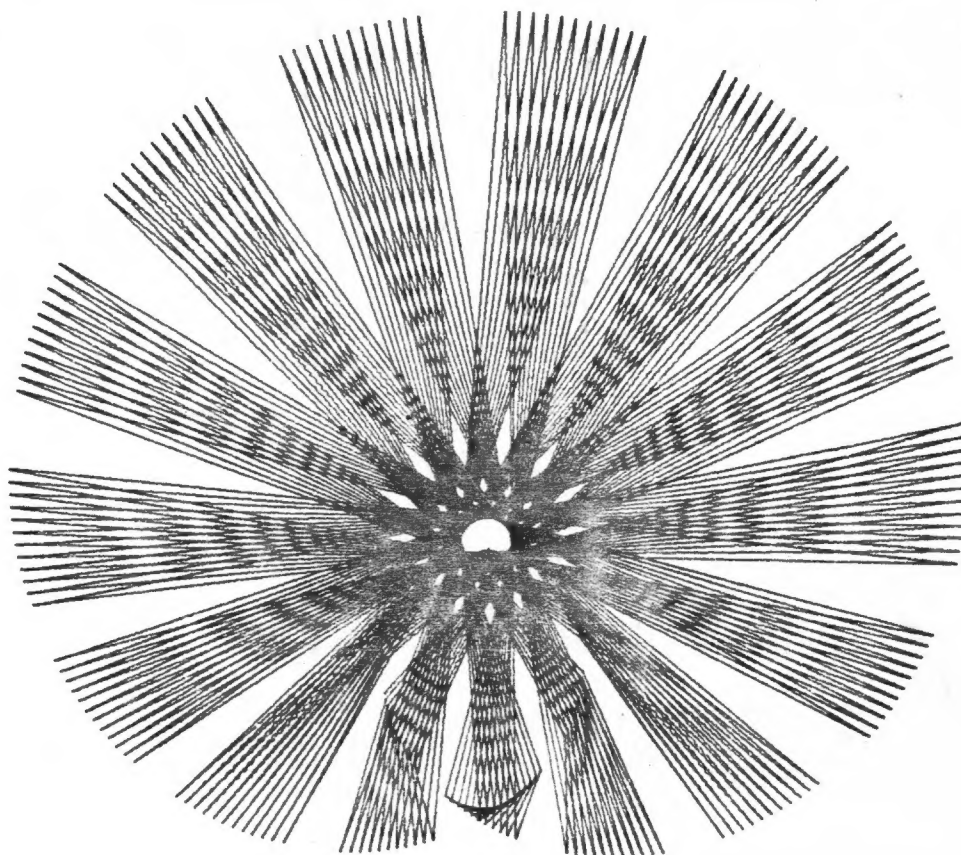


# THE RAMTOP

FEBRUARY

1987

PUBLISHED BY THE  
GREATER CLEVELAND SINCLAIR USERS GROUP



---

WEST SIDE GROUP MEETS AT LAKEWOOD PUBLIC LIBRARY  
15425 DETROIT AVE. LAKEWOOD OHIO 7:00 P.M.  
EVERY THIRD FRIDAY EACH MONTH  
CONTACT: DICK SIEG (216) 433-4387

EAST SIDE GROUP MEETS AT THE EUCLID SQUARE MALL  
IN THE EUCLIDIAN ROOM 7:30 P.M.  
EVERY FIRST FRIDAY EACH MONTH  
CONTACT: MAX SCHOENFELD (216) 371-1096

---

A short note to our friends from other newsletters and magazines. You are welcome to use any of our material, news, adds, or programs if YOU: (1) Tell where it came from (RAMTOP Cleveland, Ohio) and (2) The author's name that wrote the article. We would appreciate it if you would send us a copy of the newsletter that it appeared in! Unless otherwise notified we will do the same.

THANK YOU FOR YOUR INTEREST IN OUR NEWSLETTER !

---

THE TSU-BBS IS ALIVE  
SYSOP:Chris Raynak PHONE:216-327-1099 PARAMETERS:7/1/0

\*\*\*\*\*  
 TIMEX/SINCLAIR NEWS & RESOURCES  
 \*\*\*\*\*  
 news/rumors  
 hardware software literature  
 -----  
 FEB. 1986 by Andy Kosiorek  
 -----

# 1987 MIDWEST T/S COMPUTERFEST

THE 1987 T/S FEST will be held on May 2 & 3rd, at the Holiday Inn-North, Indianapolis, Indiana. The hotel is located off of I-465, at 3850 Depauw Blvd. The hotel operates an airport limo.

A group rate of \$52.00 per nite, per room, is available for Fest attendees. Reservations may be made by calling 317-872-9790 or 1-800-HOLIDAY. To obtain the group rate you must state that you will be attending the Fest when you make the reservation. This Holiday Inn is a "Holidome" with first class accommodations and amenities. There are many other nearby hotels, in all price ranges. I will have a list available at the March Club meetings.

Conference rates are -  
 preregistration (before 3/1)  
 single \$4.00, family 7.00  
 at the door -  
 single \$6.00, family \$9.00.

For mail preregistration, send your check to:  
 Paul Holmgren  
 Ex. Dir. Midwest TS Fest  
 5231 Wilton Wood Ct.  
 Indianapolis, Indiana 46254

Our club will have a display in the exhibit area. The latest reports state that exhibit space booked to date already exceeds the total booked last year.

Along with a larger exhibit area (6000 sq. feet), there will be two seminars running concurrently. There will also be a flea market area for attendees to sell or swap "used" hardware and "legal" original copies of used software.

For those arriving on Friday, there will be a group banquet, at about 7 pm. Reservations for this event are available only through the Club. If you would like to attend, please let me know by Friday, April 3.

Tom Simon is co-ordinating our Clubs table displays at the Fest. If you will be attending please contact Tom and sign up to work a session at our table. If you would like to car-pool to this event, please ask at the March Club meetings.

\*\*\*\*\*

\*\*\*\*\*  
 TIMEX/SINCLAIR NEWS & RESOURCES  
 \*\*\*\*\*  
 news/rumors  
 hardware software literature  
 -----  
 FEB. 1986 by Andy Kosiorek  
 -----

# THE SHAKEOUT CONTINUES - - -

TS HORIZON's announced in the December issue, (#21), that they will discontinue publishing with issue #29. They also stated that they would be willing to have someone else take over or share in publishing the magazine.

With the recent closing of SUM Magazine, the only independent US magazines devoted to the T/S computers are Syncware News and Time Designs Magazine - both quality publications.

"CTH" Magazine also has strong support for the T/S user. In 1986 they published 65 articles on T/S subjects

## DISK DRIVES:

Zebra has sold out of and will no longer carry the Timex of Portugal FDD system. However a "Timex of Portugal Systems" newsletter is being organized. For further info write to John Bylander, 1203 Owens St. #308, Stillwater, MN. 55082.

In the UK, Opus has discontinued production of the "Discovery Disk System for the Spectrum. However a new combination Disk - printer interface for the Speccy "the Disciple" has appeared in the British mags for £74.00, without drives.

## GOOD NEWS.....

Russell Electronics has an improved Romswitch. It now includes a TS 2068 ROM, with the corrections published in the US journals, and a Spectrum ROM with a "trace" feature, similar to the Brazializn ROM.

On the subject of tracers, a software program, "Tracer TS2068" is now available for about \$15.00. This program will print at the bottom of the screen, each line of your basic program as it is executed.

Our thanks to Jeff Moore, editor of Syncware News, for the excellent program he presented at our Feb. 6 meeting. One of the highlights was the demo of new high quality software for the TS 1000. "Multi-tasking" on the 1000- yes for real!

\*\*\*\*\*

Here we are going into our third year as an "orphan" computer. We are still going strong! We who own these marvels, know that they are excellent machines! We all know that they have a lot of yet unleashed potential. This was proven at the Feb. East Side meeting by JEFF MOORE, Editor of SYNCWARE NEWS. He demoed hi res. graphics with a stock 1000 that had a Hunter board attached! He also showed us a system that he built that had TWO disk drives, an OLIGER vidio board, 64K computer adressable RAM, 16K vidio RAM, and best if all, a 1000 as the brains! He also demoed a cartridge version of ProFile. Profile is a very fast and easy to use filing program that lets you find info FAST! The cartridge version allows you to have a lot more RAM and has the centronics drivers built it! Jeff said that it was also compatible with the OLIGER disk system.

I HOPE THAT YOU ALL WILL DROP JEFF A NOTE AND THANK HIM FOR HIS EFFORTS! I know that I boosted up by his enthusiasm! His address is: Jeffery Moore, 602 South Mill St., Louisville, OH, 44641 If you would be interested in receiving SYNCWARE NEWS, send a note to that effect along with a check for \$16.95 to: SYNCWARE NEWS (Thomas B. Woods), P.O. Box 64, Jefferson, NH, 03583.

I have decided that there should be a column devoted to the OLIGER DISK SYSTEM and othe fine products form the John Oliger Co. Many of us now have this system and it would be great if we are all kept informed as to the status of his DOS as well as other products that he is producing. John is an easy person to talk to and has a genuine commitment to the T/S computers. He not only sells fine products, but he backs up what he sells with quick service, and any advice you may need to get you up and running.

I have a bit of a beef for a very few T/S people. I have seen on more than one occation an article or program that I had written in another T/S publication that had someone elses name or was not given credit to the RAMTOP as the source. If it's happened to me I know that it has happened to others. I'm sure you will agree that this is NOT fair to the person who spent the time to develop the program or write the article!

THIS MONTHS NOTES BRINGS THE FOLLOWING TELEPHONE #'S TO CALL WITH YOUR MODEM. IF YOU ARE INTO MUSIC MAKING WITH YOUR COMPUTER, CALL THE MUSICAL INSTRUMENT DIGITAL INTERFACE (MIDI) BBS THAT RUNS UP TO 2400 BAUD AT 214-276-8982. THEY HAVE SONG FILES, SYNTHESIZER PATCHES AND MIDI EQUIPMENT NEWS. ALLIANCE FRANCAISE HAS A BBS AT 803-585-8575, WHICH DESCRIBES ITSELF AS LE PREMIER SYSTEME BILINGUE D'ECHANGES INFORMATISES. THE BBS IS ALLEGED TO BE IN ENGLISH. THE HOUSTON TO JUPITER SPECIAL IS AT 713-468-8886 AND IS THE BBS OF THE AMERICAN INTERSTELLAR SOCIETY. THEY HAVE A NUMBER OF ONLINE CONFERENCES AS WELL AS A GAME 'EMPIRE'. YOU CAN GET FREE TIME ON PEOPLE LINK IF YOU CALL 800-826-8855 AND USE THE OPTION FOR INFORMATION. THEY WILL SEND YOU A PASSWORD AND ID# GOOD FOR AN HOUR ON THEIR SYSTEM.

PETE FISCHER AND STEVE ISHII HAVE PUBLISHED A PUBLIC DOMAIN MODEM GUIDE. IT IS AVAILABLE TO BE COPIED WITHOUT RESTRICTION. THERE ARE SEVERAL COPIES FLOATING AROUND OUR GROUP. IF YOU WANT ONE AND DON'T WANT TO COPY IT WRITE TO PETE FISCHER, P.O. BOX 2082, TEMPE, ARIZONA 85281. SEND HIM A COUPLE DOLLARS TO COVER POSTAGE AND XEROXING. YOU CAN ALSO REACH HIM ON THE TSU BBS.

WHILE SPEAKING OF THE OLIGER SYSTEM, WE HAVE FINALLY RECIEVED PERMISSION TO MARKET THE ADAPTATION OF SPOOS FOR THE OLIGER INTERFACE. IT FEATURES COMPATABILITY WITH DISKS SAVED WITH THE MILLENNIA K SYSTEM AND OFFERS USERS A FULL DOS THAT WILL HANDLE SEQUENTIAL FILES WHILE CO-EXISTING WITH THE OLIGER SAFE BASIC DOS. IT IS AVAILABLE FROM THE CUYAHOGA VALLEY SOFTWARE WORKS, 615 SCHOOL AVE., CUYAHOGA FALLS, OHIO 44221 FOR \$24.95 +\$1.50 FOR SHIPPING (IF REQUIRED). IT SHOULD BE AVAILABLE AS SOON AS THE DOCUMENTATION IS COMPLETED IN 40 OR 80 TRACK DRIVE FORMATS. FOR FURTHER INFORMATION CONTACT THOMAS SIMON AT THE ADDRESS ABOVE.

CHRIS RAYMOND IS EXPANDING THE TSU AGAIN HE WILL BE ADDING A C-128 AND TWO DISK DRIVES TO THE BBS NETWORK TAKING IT WELL OVER A MEG OF AVAILABLE MEMORY. HE ALSO HAS DISCOVERED THAT THOSE WHO HAVE QL'S AND HAVE HAD PROBLEMS WITH THE BBS AT 1200 BAUD, SHOULD LOG ON AS A NEW USER, REGISTER THEIR COMPUTER AS OTHER AND SET THE NULLS TO 50 OR MORE WHICH WILL SLOW THE BBS DOWN ENOUGH TO WORK WITH THE QL. THE TSU NOW HAS A QL PROGRAMS IN THE DOWNLOAD SECTION. SOME OF YOU MAY KNOW THAT HE HAS AN OLIGER SIG, THE ONLY ONE IN THE COUNTRY. JOHN OLIGER WAS RECENTLY ON AND HE SAYS HE WILL BE BACK ON THE TSU AGAIN ANSWER QUESTIONS THERE. SO WHY NOT CALL SOME NIGHT AND LEAVE A MESSAGE?

UTSUG MEMBER TOBY RADLOFF WAS MENTIONED RECENTLY ON NATIONAL TV. IF YOU CAUGHT THE DAVID LETTERMAN SHOW JANUARY 6TH, ONE OF HIS GUESTS WAS WAS CLEVELAND COMIC BOOK AUTHOR, HARVEY PEKAR WHO SAID HELLO TO TOBY, WHO ALSO WORKS FOR THE UA IN CLEVELAND.

RECENTLY WE RECIEVED A LETTER FROM A LADY IN NEW YORK WHOSE 14 YEAR OLD SON SHE DESCRIBES AS AN ACCOMPLISHED T/S 2068 USER. HE IS LIVING IN ROMANIA AND IS INTERESTED IN CORRESPONDING WITH OTHER USERS. WRITE TO : ALEANDRU ROSIGREANU, STR. CIMPINA 25, BUCHAREST- 51, ROMANIA.

COMING UP MARCH 8 IS A COMPUTERFEST AT THE MASONIC GREAT HALL, 4645 NETHERDOWNS BLVD., TOLEDO. IT IS VERY CLOSE TO EXIT 4 OF THE OHIO TURNPIKE. THESE COMPUTERFESTS USUALLY ARE A GOOD SOURCE OF HARDWARE AND ELECTRONIC PARTS. FOR FURTHER INFORMATION CALL MIKE NOWONIEJSKI AT 419-385-5878 OR 419-865-3124.



Here I s a neat game for the 2068.  
It was given to me on a tape from  
Gabe Schaffer.

```

20 LET h=0
30 GO TO 5000
100 IF a>31 THEN GO TO 500
105 PRINT AT d,a;" "; IF j<1 TH
EN GO TO 4000
110 PRINT AT 17,f+1;" "; AT 18,f
;" "; IF ATTR (17,f)<>40 THEN P
RINT AT 17,f;" "
120 LET f=f+(INKEY$="8" AND f<=
29)-(INKEY$="5" AND f>=11)
130 PRINT INK 5; AT 17,f;"Y"; TAB
f+1; INK 6;" "; AT 18,f; INK 6;
PAPER 3;" "
140 IF ATTR (d,a)=40 THEN PRINT
AT d,a;" "
150 LET d=d+dd; LET a=a+aa
160 IF d=17 THEN GO TO 200
170 IF d=18 THEN GO TO 300
180 IF d=14 THEN GO TO 400
210 IF ATTR (d,a)=46 AND i=11 T
HEN GO TO 3000
220 IF SCREEN$ (d,a)="Y" AND i=
1 THEN PRINT AT d,a;" "; BEEP .1
0; PRINT AT d,a;" "; LET s=s+5;
PRINT INK 7; PAPER 0; AT 2,9;s; A
T 1,28;j-1;" "; LET j=j-1; GO T
O 2400
230 GO TO 100
300 IF ATTR (d,a)=30 THEN LET a
=a-1; LET aa=0
310 LET dd=-dd
320 IF INT (RND*2+1)=1 THEN LET
aa=0
330 LET i=0
340 GO TO 100
400 LET dd=-dd
410 LET aa=1
420 LET i=1
430 GO TO 100
500 LET j=j-1; PRINT INK 7; PAP
ER 0; AT 1,28;j;" "
510 GO TO 2400
910 BORDER 0; PAPER 5; CLS
920 PRINT INK 1; AT 5,7;"IF BALL
HITS TOP-"; AT 7,7;"CATCHER DEST
ROYED"; AT 12,6;"TO MOVE CATCHER
USE"; AT 14,11;"<- OR ->"; AT 16,6
;"(AFTER CANNON FIRES)"
930 FOR a=1 TO 20: BEEP .1,a: B
EEP .1,20-a: NEXT a: CLS
1100 FOR a=19 TO 21: FOR b=0 TO
31: PRINT INK 4; AT a,b;" "; NEXT
b: NEXT a
1200 PRINT AT 14,1;" "; TAB 0;" "
;" "; TAB 0;" "; TAB 0;" "; TAB 0;" "
1300 FOR a=0 TO 2: FOR b=0 TO 31
: PRINT INK 0; AT a,b;" "; NEXT b
: NEXT a
1400 PRINT INK 7; PAPER 0; AT 1,1
;"HIGHEST:0"; TAB 15;"CANNON BALL
5:50"; TAB 1;"SCORE :0"; TAB 15;"
CATCHERS :7"
1500 PRINT INK 6; AT 17,15;" "; AT
18,14;" "
1600 FOR a=1 TO 20: BEEP .1,20-a
: BEEP .1,a: NEXT a
2100 LET s=0; LET f=14; LET g=7;
LET i=0; LET j=50
2400 LET c=INT (RND*2+1); LET e=
INT (RND*2+1); LET d=14+c; LET d
d=1; LET a=1+e; LET aa=1
2950 PRINT INK 7; AT 14,3;" "; AT
15,2;" "; AT 16,3;" "; BEEP .3,-
20; PRINT AT 14,3;" "; AT 15,2;"
"; AT 16,3;" "; GO TO 100
3100 PRINT AT d,a;" "
3200 FOR a=1 TO 3: BEEP .2,5: BE
EP .2,-5: NEXT a
3300 PRINT AT 17,f;" "; AT 18,f;

```

```

3400 LET g=g-1; PRINT INK 7; PAP
ER 0; AT 2,28;g; AT 1,28;j-1;" "
LET j=j-1
3500 IF g=0 OR j=0 THEN GO TO 40
00
3600 GO TO 2400
4050 FOR b=1 TO 3
4100 FOR a=7 TO 0 STEP -1
4200 BORDER a
4300 BEEP .1,a
4400 NEXT a
4500 NEXT b
5100 PRINT INK 1; AT 5,9;"FOR NEW
GAME-"; AT 7,9;"PRESS ""ENTER""
"
5200 IF INKEY$=CHR$ 13 THEN GO T
O 5400
5300 GO TO 5200
5400 IF s>h THEN LET h=s
5450 PRINT INK 7; PAPER 0; AT 2,9
;0;" "; AT 1,28;50; AT 2,28;7; AT
1,9;h
5500 PRINT AT 17,f;" "; AT 18,f;
;" "; AT 5,9;" "; AT 7
,9;" "
5600 GO TO 2000
6100 LET z=255
6200 FOR a=1 TO 4
6300 READ a$
6400 FOR b=0 TO 7
6500 READ c: POKE USR a$+b,c
6600 NEXT b
6700 NEXT a
6800 DATA "a",0,0,0,0,0,0,3,3
6900 DATA "b",3,3,0,0,0,0,0,0
7000 DATA "c",252,254,z,z,z,z,z,
z
7100 DATA "d",60,126,239,223,223
,z,126,60
7200 GO TO 900

```

## OLIGER PRODUCTS COLUMN

Here is our first OLIGER column. It will be breif this time as I don't have a lot of space this issue. The biggest news is that there is a new DOS for the OLIGER disk system for the 2068. Most of you have heard about the version 2.1. This gave us almost all the comands that we have on the cassette plus a few used by the interface only. All the printer software is still there but we now have a way to save only what we need to. The disk actually uses 5K chunks but you may save 1 byte of MC if you want. The latest is version 2.20. In this version you may now MOVE files from one drive to another drive. (not the whole disk only) There is also verifacation done when saving files. The CAT is also checked to be sure you don't put any errors in it while saving. As a few of you know, this can be a real disaster! I lost the CAT on my Greeting card program. To be fair, I have only had this one error in all the time that I have had the this disk system. I think that is a darn good track (Ha HA) record myself. We will discuss more in the next issue.

James G. DuPuy

## Digital Imagizing - Part I

By Eric Michaud

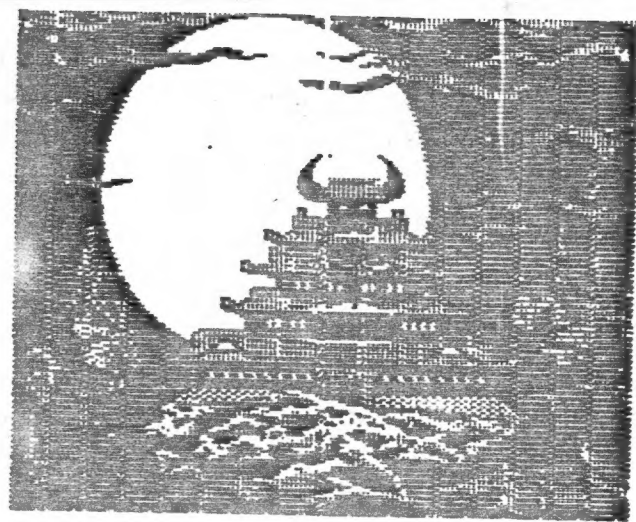
Have you ever wanted to have some REAL pictures for your 2068? I don't mean your usual pictures from your typical drawing programs but real pictures, such as your face, for example. This tutorial will show you how to hook up a video camera to your 2068 with a fairly simple hardware attachment.

I chose to wire-wrap my prototype and it worked fine but be sure to keep wires as short as possible in the op-amp section of the circuit. My version lies in the cartridge port but it would be easy enough to transfer to the rear connector if desired. Other than that I will leave the actual construction up to you.

The circuit can be divided into two parts. The interface and the digitizing circuitry. The interface section simply provides 8 inputs and 8 outputs. Only 4 outputs are actually used along with 2 inputs. The extra lines could be used for your own projects. I chose to map the interface to IO port 00 but this could easily be changed to another port if it interferes with another piece of hardware. Small software changes would have to be made to accommodate for this change. The digitizing section of the circuit essentially separates the video sync signal and the actual picture data from your video source and by use of the LM311's, the picture is converted to a digital format. Then through timing accomplished by the 74LS74N and the LM555, the picture is sampled at appropriate times to collect the image.

It is important to note that you must have a still video source as it takes 5 seconds to collect one image. Also, your video source must be capable of driving a monitor. RF video such as from a ZX81 will NOT work. A VCR or video camera with a MONITOR OUT jack will work. For testing purposes, I recommend another computer with a monitor output plug or a VCR with shake-free freeze frame. There are three controls on the digitizer. The BRIGHTNESS knob sets the brightness of the image. The STRETCH knob allows you to horizontally expand or compress the image. Finally the SYNC knob is used to place yourself 'in sync' with the incoming video source.

I will leave you with the schematic for now and in the next article, setup, theory and use will be discussed. In the meantime, I suggest that you obtain the driver software from the club library. The program is called EyByN1.B1. If you still aren't convinced of the usefulness of this project, check out the picture I have taken from KARATEKA, an Apple II+ game.



Examples of the Digital Imagizer output

### FOR SALE

TS 1000 with Gladstone 64K RAMPACK  
With 14 original tapes, and  
many other tapes, and some books

\$150 or BEST OFFER takes the whole deal  
Call: Arthur WASNER (519) 681-0416  
or write: 991 Willow Drive,  
LONDON, Ont. N6E 1P4

### A NOVELTY

TS 2068

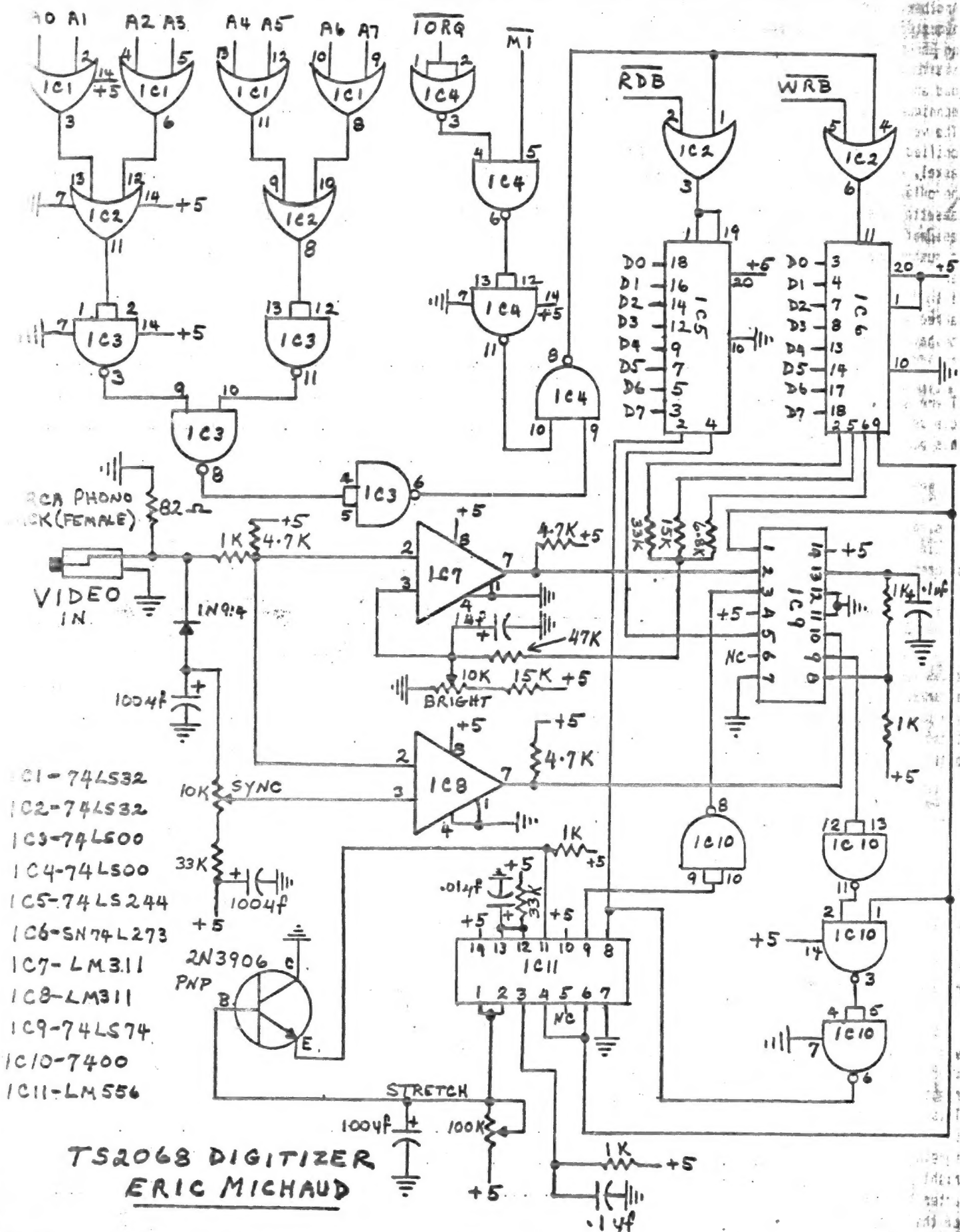
An interesting and rather "pretty" bug exists in the way the DRAW command executes its arc-making facility.

Try this short routine:

```
10 INPUT "Any odd number";n
15 CLS
20 PLOT 75,50:DRAW 100,100,PI *n
30 GOTO 10
```

Having RUN this program, try adding the following line. 5 OVER 1

Try inputting these numbers: 253, 237, 375, 287, 157, and EXPERIMENT!!



If you would like to subscribe to the RAMTOP please fill out this form and send it to the listed address along with a check for: \$15/Year or \$7.50/ 6 mo. to become a member of our Group (Attend meetings, use library tapes Ect.) or: \$12/Year or \$6/ 6 months to receive the RAMTOP only. Please make checks payable to the RAMTOP! (The phone # is only for our records!)

\*Please print! Enclosed: \$\_\_\_\_\_ for 1 year\_\_ / 6 months\_\_ \*

\*NAME: \_\_\_\_\_ PHONE: \_\_\_\_\_ - - - \*

We need your phone #  
for our records!

\*STREET: \_\_\_\_\_ \*

\*CITY: \_\_\_\_\_ STATE: \_\_\_\_\_ ZIP: \_\_\_\_\_ \*

\*Type of computer(s) and peripheral(s) you own: \_\_\_\_\_ \*

\* *THANK YOU for your interest!* Please send to:  
\*Robert Parish, 12706 Leeila Ave., Cleveland, OH 44135 \*

1 REM \*\*\*

NOTES CONTINUED

PROGRAM 1.2 (BOUNCING BALL)  
(with glass walls)

By James N Jones  
2242 Locust St  
Amarillo, TX 79109

2 REM SIMULATES A BALLBOUNCING  
OFF FLOOR AND WALLS

```
5 BORDER 1: PAPER 1: INK 7
9 LET DX=0: LET V1=1
10 LET X=50: LET Y=4: LET A=1:
LET V=0
20 CLS : OVER 1
30 PLOT 0,0: DRAW 0,175: DRAW
255,0: DRAW 0,-175: DRAW -255,0
40 PLOT X,175-Y: PLOT X+1,175-
Y: PLOT X,174-Y: PLOT X+1,174-Y
50 IF Y>174 THEN GO SUB 5000:
IF V=0 THEN LET V=-1
60 IF X>254-DX THEN GO SUB 600
0
70 IF X<(1-DX) THEN GO SUB 700
0
80 LET V=V+A
90 PLOT X,175-Y: PLOT X+1,175-
Y: PLOT X,174-Y: PLOT X+1,174-Y
100 LET Y=Y+V: LET X=X+DX
104 IF V1=0 AND V=0 THEN GO TO
8000
105 LET V1=V
110 GO TO 40
5000 LET V=-V: SOUND 0,22;2,43;4
,55;6,31;7,56;9,16;11,2;13,0
5010 RETURN
6000 LET DX=-DX: SOUND 0,33;1,0;
7,62;8,16;11,232;12,1;13,0: PAUSE
1
6010 RETURN
7000 LET DX=-DX: SOUND 0,55;2,33
,4,77;7,56;8,16;9,16;10,16;11,2;
13,0
7010 RETURN
8000 LET DX=ABS DX+1
8010 GO TO 10
9999 CLEAR : SAVE "glasswalls" L
INE 1
```

THE BUCKER SQUARE SHOW IS BEING HELD MARCH 21 AND 22. AS USUAL WE ARE HAVING A TABLE THERE. IF YOU WOULD LIKE TO HELP MAN THE TABLE CALL THOMAS SIMON 328-7910. ALSO CALL HIM IF YOU WOULD LIKE TO HELP WITH THE INDIANAPOLIS SHOW. WE NEED THREE COMPUTERS FOR DISPLAY AT THE INDIANAPOLIS SHOW AND TWO AT THE AKRON SHOW.

THERE IS ANOTHER 512K INTERNAL MEMORY EXPANSION BOARD FROM THE UK FOR THE QL CALLED "QL640". IT REQUIRES A LITTLE BIT OF SOLDERING AND RELOCATING THE SMALL SQUARE CIRCUIT BOARD ON THE QL, MAKING THE MODIFICATION TO THE POWER SUPPLY (WHICH MANY HAVE DONE ALREADY) AND IF THE QL HAS ITS CAPACITORS MOUNTED VERTICALLY, REMOUNTING THEM ON THE UNDERSIDE OF THE BOARD (ONLY SOME QL'S ARE SET UP THIS WAY). IT IS AVAILABLE FROM INPHOLINK, FRONT STREET WEST, BEDLINGTON, NORTHUMBERLAND, NE22 5UB, ENGLAND AND COSTS \$69. WITH SHIPPING AND THEY WILL TAKE VISA.

SHARP'S HAS TWO PRODUCTS FOR THE QL WHICH ARE WORTHY OF COMMENT. THE FIRST IS A CLOCK WHICH RUNS ON A BATTERY RECHARGED FROM THE COMPUTER. THE PRICE IS \$29.00. THE SECOND IS A MULTITASKING PROGRAM CALLED TASKMASTER. WHEN USED WITH A MEMORY EXPANSION LIKE THAT PREVIOUSLY MENTIONED ALL OF THE FOUR QL BUSINESS PROGRAMS CAN BE STORED AND RUNNING AT THE SAME TIME.

MOVING FROM QL TO THE 1000.....RALPH ROGSTAD HAS SEVERAL CASES OF 16K RAM MODULES TO SELL FOR THE 1000 AT THE FOLLOWING RATES..... 1 FOR \$10., 2 TO 15 AT \$7.50 EACH, AND OVER 16 AT \$5. EACH. CALL HIM AFTER 6 PM AT 883-366-5895 OR WRITE TO HIM AT 2606 CELANESE ROAD, ROCK HILL, SOUTH CAROLINA, 29730.

Would you like a program that will compute a tax table for you? If you do, bring your tape recorder to the next meeting and I let you copy a program that I typed in from Time Designs Jan/Feb issue. This program is very handy! It's called 2068 Tax Calculator. (your income must be under \$50,000)

MAX SHOENFELD



THE FOLLOWING FORM IS FOR THOSE WHO ARE INTERESTED IN RECEIVING A LIBRARY TAPE. YOU MUST FILL THIS OUT AND RETURN IT IF YOU WANT A TAPE MAILED TO YOU! This form is for those of you that DON'T attend the meetings. There are 2 ways to get a copy of the programs in our library: 1- Send a C-90 with your return address and \$1.00 (P&H) or 2- We will send you a tape that you can keep for \$3.00. (Make checks payable to The RAMTOP)  
*Thank You for your support of our group!*

\*\*\*\*\*

\* LIBRARY TAPE FORM \*

\* NAME \_\_\_\_\_ PHONE \_\_\_\_\_  
 \* phone # is REQUIRED!

\* ADDRESS \_\_\_\_\_

\* CITY \_\_\_\_\_ STATE \_\_\_\_\_ ZIP \_\_\_\_\_

\* TYPE OF COMPUTER YOU OWN: 1000/ZX-81 \_\_\_\_ /1500 \_\_\_\_ /2068 \_\_\_\_  
 \* check all that you have : QL \_\_\_\_ OTHER \_\_\_\_\_

\* Do you have a DISK system: (type) \_\_\_\_\_  
 \* Please note that we request that the form be filled out as  
 \* completely as possible.

\*\*\*\*\*

Mail the form along with your check (\$1.00 or \$3.00) to:  
 Dean Miller (Librarian) + It would be appreciated if you  
 29324 Park St. + send us any noncopyrighted soft-  
 Wickliffe, OH, 44092 + ware!!! (Phone- 216-944-8630)

From:  
 THE GREATER CLEVELAND SINCLAIR USERS GROUP  
 James G. DuPuy (Editor)  
 6514 Bradley Ave.(Down)  
 Parma, Ohio 44129

**TO:**